

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

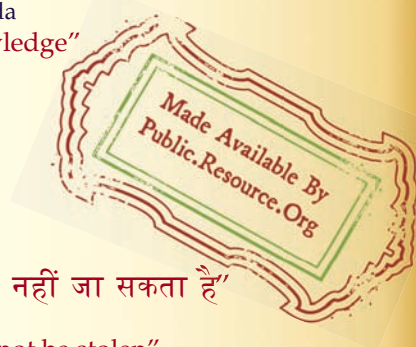
IS 10065 (1981): Roasted Groundnut (Peanut) Kernels [FAD
16: Foodgrains, Starches and Ready to Eat Foods]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



IS : 10065 - 1981

Indian Standard

SPECIFICATION FOR
ROASTED GROUNDNU'
(PEANUT) KERNELS

UDC 634.58 : 664.85.036



© Copyright 1982

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

March 1982

Indian Standard

SPECIFICATION FOR ROASTED GROUNDNUT (PEANUT) KERNELS

Nutrition Sectional Committee, AFDC 37

Chairman

DR K. T. ACHAYA

Representing

United Nations University Programme, Central
Food Technological Research Institute
(CSIR), Mysore

Members

DR A. S. AIYAR

Protein Foods and Nutrition Development
Association of India, Bombay
Tata Oil Mills Co Ltd, Bombay

DR B. P. BALIGA

SHRI M. C. BADAMI (*Alternate*)

DR M. G. DEO

DR BALDEV SINGH (*Alternate*)

Indian National Science Academy, New Delhi

DR A. D. DEODHAR

National Dairy Research Institute (ICAR),
Karnal

DR B. N. MATHUR (*Alternate*)

DR (SHRIMATI) RAJAMMAL P.

DEVADAS

Home Science Association of India, Coimbatore

DR SYED RIAZ AHMED (*Alternate*)

SHRI JASBIR SINGH

SHRI T. RAMASIVAN (*Alternate*)

Food Corporation of India, New Delhi

SHRI K. S. KANNAN

DR R. JAYARAM (*Alternate*)

The Britannia Industries Ltd, Bombay

SHRI H. H. LILLANEY

SHRI R. K. SETH (*Alternate*)

Solvent Extractors' Association of India, Bombay

DR V. B. MITBANDER

DR M. M. KRISHNA (*Alternate*)

Modern Bakeries (India) Ltd, New Delhi

DR M. S. NAIK

Indian Agricultural Research Institute (ICAR),
New Delhi

DR B. M. LAL (*Alternate*)

(*Continued on page 2*)

© Copyright 1982

INDIAN STANDARDS INSTITUTION

This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

IS : 10065 - 1981

(Continued from page 1)

Members

DR B. S. NARASINGA RAO
DR S. S. PHATAK

SHRI G. D. SHARMA (*Alternate*)
DR N. S. RAJAGOPAL

DR M. K. KUNDU (*Alternate*)
SHRI S. RAMASWAMY

ASSISTANT DEVELOPMENT OFFICER (*Alternate*)

SHRI M. G. SATHE
SHRI S. V. PHADKE (*Alternate*)
DR P. C. SEN

SHRI D. S. CHADHA (*Alternate*)
SHRI V. H. SHAI

SHRI KAILASH VYAS (*Alternate*)
DR K. SRINIVASAN
MAJ-GEN A. R. SUBRAMANIAN

COL P. C. GILL (*Alternate*)
DR G. A. SULEBELE
SHRI B. K. RAMAIAH (*Alternate*)
DR M. S. SWAMINATHAN

DR V. NAGARAJAN (*Alternate*)
KUMARI M. S. USHA

DR S. VENKAT RAO

DR P. B. RAMA RAO (*Alternate*)
DR P. K. VIJAYARAGHAVAN
DR M. V. RAMA RAO (*Alternate*)
SHRI VINEET VIRMANI

SHRI SANTANU CHAUDHURI (*Alternate*)
SHRI T. PURNANANDAM,
Director (Agri & Food)

Representing

National Institute of Nutrition, New Delhi
Food and Nutrition Board, Ministry of Agriculture
and Irrigation, New Delhi

Directorate of Vegetable Oils and Fats, Department
of Civil Supplies and Co-operation, New
Delhi

Directorate General of Technical Development,
New Delhi

Sathe Biscuits and Chocolate Co Ltd, Pune

Directorate General of Health Services, New
Delhi

Kaira District Cooperative Milk Producers'
Union Ltd, Anand

Hindustan Lever Ltd, Bombay
Directorate General of Armed Forces Medical
Service, New Delhi

Bangalore Dairy Miltnone Project, Bangalore

Indian Council of Agricultural Research, New
Delhi

G. B. Pant University of Agriculture and Techno-
logy, Pantnagar
Central Food Technological Research Institute
(CSIR), Mysore

Defence Food Research Laboratory, Mysore

Roller Flour Millers' Federation of India, New
Delhi

Director General, ISI (*Ex-officio Member*)

Secretary

SHRIMATI SHASHI SAREEN

Assistant Director (Agri and Food), ISI

Snack Foods and Savoury Foods Subcommittee, AFDC 37 : 4

Convener

DR H. S. R. DESIKACHER

Central Food Technological Research Institute,
(CSIR) Mysore

(Continued on page 9)

AMENDMENT NO. 1 OCTOBER 1989
TO
IS : 10065 - 1981 SPECIFICATION FOR ROASTED
GROUNDNUT (PEANUT) KERNELS

(*Page 4, clause 2.1.2*) — Substitute the following for the existing clause:

'2.1.2 Salt — Conforming to IS : 253-1985† or IS : 7224-1985‡.'

(*Page 4, foot-note marked with '†' mark*) — Substitute the following for the existing foot-note:

'Specification for edible common salt (*third revision*).'

(*Page 4, foot-note marked with '†' mark*) — Insert the following foot-note at the end:

'‡Specification for iodized salt (*third revision*).'

(*Page 5, Table 1*) — Insert the following after Sl No. (iv):

'v) Peroxide value, meq oxygen/kg fat 10 22 of IS : 3508-1966†'

(*Page 5, foot-note marked with '*' mark*) — Insert the following after the existing foot-note:

'†Methods of sampling and test for ghee (butter fat).'

(AFDC 37)

Indian Standard

SPECIFICATION FOR ROASTED GROUNDNUT (PEANUT) KERNELS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 December 1981, after the draft finalized by the Nutrition Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Roasted groundnut (peanut) kernels are popular in India as a savoury snack. These are processed from shelled and roasted peanuts to which salt, fat and spices are added to enhance the taste.

0.3 Roasted groundnut (peanut) kernels also have a good potential for export. This highlights the need for a standard that would benefit both the consumer and the manufacturer.

0.4 While formulating this standard, necessary consideration has been given to the relevant Rules prescribed by the Government of India, under the *Prevention of Food Adulteration Act, 1954* and the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977*. This standard is, however, subject to the restrictions imposed under these, wherever applicable.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for roasted groundnut (peanut) kernels.

*Rules for rounding off numerical values (revised).

2. ESSENTIAL INGREDIENTS

2.1 The following materials shall be used in the preparation of roasted groundnut (peanut) kernels.

2.1.1 *Groundnut (Peanut) Kernels* — Hand picked selected kernels suitable for table use, conforming to grades *HPS* Bold 1, *HPS* Bold 2, *HPS* Bold 3, *HPS* Khandesh 1 and *HPS* Khandesh 2 of IS : 4427-1967* shall be used. The kernels shall be free from foreign matter, such as mud and stones and from other non-edible oilseeds such as *MAHUA*, castor and *NEEM*.

2.1.1.1 In order to completely eliminate immature, shrivelled and mouldy kernels which could carry higher levels of aflatoxin, the kernels shall be finally selected either by visual inspection, inspection under ultraviolet light, electronic sorting or other means. After roasting and blanching, the peanuts shall be cleaved of all lentils, germs, over-burnt seeds, etc.

2.1.2 *Edible Common Salt* — Conforming to IS : 253-1970†.

2.1.3 *Fat* — Refined edible oils, edible hydrogenated vegetable oils, or ghee singly or in combination.

2.1.4 *Antioxidants* — As permitted under the Prevention of Food Adulteration Act 1954.

3. OPTIONAL INGREDIENTS

3.1 In addition to the essential ingredients specified in 2, any of the following powdered ingredients, conforming to the relevant Indian Standard specifications wherever available, may be added for variation in taste:

- a) Black pepper;
- b) Red chilli;
- c) Black salt (*KALA NAMAK*);
- d) *AMCHUR* (raw, dried mango); and
- e) Other spices.

4. REQUIREMENTS

4.1 *Description* — Roasted groundnut (peanut) kernels shall be prepared from clean, sound, shelled and mature peanuts which have been roasted/parched/toasted in a hot dry medium. Thereafter the red skins may or may not be removed. The nuts may be left whole or split and the final product may be treated optionally with a small amount of fat, salt, spices, etc.

*Grading for groundnut kernels for oil milling and for table use.

†Specification for edible common salt (*second revision*).

4.2 Roasted groundnut (peanut) kernels shall be free from insects, insect residues, rodent hair and excreta, fungal infection, objectionable odour and rancid taste.

4.3 Roasted groundnut (peanut) kernels shall be manufactured under hygienic condition (*see* IS : 2491-1972*).

4.4 The material shall also comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR ROASTED GROUDNUT (PEANUT) KERNELS

SL NO.	CHARACTERISTIC	REQUIREMENTS	METHODS OF TEST, REF TO APPENDIX OF IS : 4684-1975*
(1)	(2)	(3)	(4)
i)	Moisture, percent by mass, <i>Max</i>	2	B
ii)	Fat, percent by mass, (on dry basis), <i>Min</i>	42	F
iii)	Acid value of extracted fat, <i>Max</i>	2	G
iv)	Aflatoxin $\mu\text{g/kg}$, <i>Max</i>	20	J

*Specification for edible groundnut flour (expeller pressed) (*first revision*).

4.5 The broken kernels in any package shall not be more than 5 per cent by mass.

5. PACKING AND MARKING

5.1 Packing — The material shall be packed in flexible, food grade, pouches or in suitable sealed containers.

5.2 Marking — The following particulars shall be marked or labelled on each container:

- Name of the material and trade-mark, if any;
- Name and address of manufacturer;
- Batch or code number;
- Net mass in grams or kilograms;
- Date of manufacture; and
- Any other details required under the Standards of *Weights and Measures (Packaged Commodities) Rules, 1977*.

*Code for hygienic conditions for food processing units (*first revision*).

5.2.1 Each container may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

6. SAMPLING

6.1 Representative samples of the material shall be drawn and conformity of the material to the requirements of the specification shall be determined according to the procedure given in Appendix A.

7. TESTS

7.1 Tests shall be carried out as prescribed in col 4 of Table 1.

7.2 Quality of Reagents — Unless specified otherwise, pure chemicals and distilled water (*see* IS : 1070-1977*) shall be employed in tests.

NOTE — ' Pure chemicals ' shall mean chemicals that do not contain impurities which affect the test results.

A P P E N D I X A

(Clause 6.1)

**SAMPLING AND CRITERIA OF CONFORMITY OF ROASTED
GROUNDNUT (PEANUT) KERNELS**

A-1. SCALE OF SAMPLING

A-1.1 Lot — All the containers in a single consignment, of the same grade, same quantity and processed at a time, shall constitute a lot.

A-1.2 For ascertaining the conformity of the material in the lot to the requirements of this specification, samples shall be tested from each lot separately.

*Specification for water for general laboratory use (*second revision*).

A-1.3 The number of containers to be sampled from each lot shall depend on the quantity of material in the lot and the containers in which it is packed. This shall be according to Table 2.

TABLE 2 SCALE OF SAMPLING

QUANTITY OF MATERIAL IN THE LOT (kg)	NUMBER OF CONTAINERS TO BE SELECTED		
	Containers of Less than 100 g	Containers of 100 g to 500 g	Containers of More Than 500 g
(1)	(2)	(3)	(4)
Up to 100	80	8	2
101 to 300	125	13	3
301 to 500	200	20	5
501 to 1 000	315	32	8
1 001 and above	500	50	13

A-1.3.1 These containers shall be selected at random from the lot employing procedures given in IS : 4905-1968*.

A-2. PREPARATION OF TEST SAMPLES NUMBER, OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 Each of the containers selected according to A-1.3 shall be opened and contents examined for the requirements given in 4.1, 4.2 and 4.5. If each of the containers so examined is found meeting the relevant requirements, the lot shall be considered to have satisfied the specification.

A-2.2 The lot having been found satisfactory according to A-2.1 shall be further tested for the chemical requirements given in 4.4. For this purpose, from each of the selected containers, an approximately equal quantity of the material shall be taken so as to make a composite sample of about 600 g. This sample shall be divided into three equal parts and transferred to clean and dry glass containers, sealed air-tight and marked with full details of sampling, such as date of sampling, batch or code number, name of the manufacturer and other important particulars of the consignment. One of these composite samples shall be for the purchaser, another for the supplier and the third for the referee.

*Methods for random sampling.

IS : 10065 - 1981

A-2.2.1 Referee Sample — Referee sample shall consist of the composite sample marked for this purpose and shall bear the seals of the purchaser and the vendor. This shall be kept at a place agreed to between the purchaser and the vendor so as to be used in case of a dispute.

A-2.3 All the requirements given in **4.4** of the specification shall be tested on the composite sample.

A-2.4 The lot shall be declared as conforming to the requirements of the specification if all the test results on the composite sample meet the relevant requirements.

(Continued from page 2)

<i>Members</i>	<i>Representing</i>
DR A. S. AIYAR	Protein Foods and Nutrition Development Association of India, Bombay
SHRI D. S. CHADHA	Directorate General of Health Services, New Delhi
DR (SHRIMATI) GODAVARI KAMALANATHAN	Home Science Association of India, Coimbatore
DR (SMT) USHA CHANDRASEKHAR (Alternate)	
DR A. G. MATHEW	Regional Research Laboratory (CSIR), Trivandrum
SHRIMATI SATHYAVATHI K. KUTTY (Alternate)	
KUMARI SWARAN PASRICHA	National Institute of Nutrition, Hyderabad
DR N. S. RAJAGOPAL	Directorate of Vanaspati Vegetable Oils and Fats, New Delhi
DR M. K. KUNDU (Alternate)	
SHRI L. A. RAMANATHAN	Defence Food Research Laboratory, Mysore
SHRI T. S. SATYANARAYANA (Alternate)	
SHRI A. K. TEJANI	Gits Food Products India, Pune
SHRI M. A. TEJANI (Alternate)	

INDIAN STANDARDS

ON

NUTRITIOUS FOODS

IS :

- 3137-1974 High-protein mixes for use as food supplement (*first revision*)
- 4684-1975 Edible groundnut flour (expeller pressed) (*first revision*)
- 4874-1968 Edible cottonseed flour (expeller pressed)
- 4875-1975 Edible groundnut flour (solvent extracted) (*first revision*)
- 4876-1968 Edible cottonseed flour (solvent extracted)
- 6108-1971 Edible sesame flour (solvent extracted)
- 6109-1971 Edible sesame flour (expeller pressed)
- 7021-1973 Protein-rich food supplements for infants and pre-school children
- 7481-1974 Method for determination of protein efficiency ratio (PER)
- 7482-1974 Protein-based beverages
- 7487-1974 Protein-rich biscuits
- 7835-1975 Edible medium-fat soya flour
- 7836-1975 Edible low-fat soya flour
- 7837-1975 Edible full-fat soya flour
- 8211-1976 Edible soya protein isolate
- 8212-1976 Edible groundnut protein isolate
- 8220-1976 Protein rich concentrated nutrient supplementary foods
- 8222-1976 Edible leaf protein concentrate
- 8664-1977 Edible coconut flour (expeller pressed)
- 8665-1977 Protein fortified bread
- 8676-1977 Edible coconut flour (solvent extracted)
- 8677-1977 Edible sunflower seed flour (solvent extracted)
- 8678-1977 Vegetable protein-based yoghurt (vegetable curds)
- 9037-1979 Peanut butter
- 9038-1979 Reconstitutable protein beverage powder
- 9039-1979 Edible sunflower seed grits
- 9071 Code of practice for control of aflatoxin in groundnuts :
 - (Part I)-1979 Harvesting, transport and storage of groundnut kernels
 - (Part II)-1979 Plant storage and processing flour and oil
- 9095-1979 Protein chewy candy
- 9216-1979 Glossary of common terms relating to nutrition and nutritious foods
- 9487-1980 'Ready-to-eat' protein-rich-extruded foods
- 9488-1979 Edible coconut protein concentrates

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	Unit	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	Unit	Symbol
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	Unit	Symbol	Definition
Force	newton	N	1 N = 1 kg.m/s ²
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1 c/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m ²

INDIAN STANDARDS INSTITUTION

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones : 26 60 21, 27 01 31

Telegrams : Manaksanstha

Regional Offices:

		Telephone
Western : Novelty Chambers, Grant Road	BOMBAY 400007	37 97 29
Eastern : 5 Chowringhee Approach	CALCUTTA 700072	27 50 90
Southern : C. I. T. Campus, Adyar	MADRAS 600020	41 24 42
Northern : B69, Phase VII	S.A.S. NAGAR (MOHALI) 160051	—

Branch Offices:

'Pushpak' Nurmohamed Shaikh Marg, Khanpur	AHMADABAD 380001	2 03 91
'F' Block, Unity Bldg, Narasimharaja Square	BANGALORE 560002	2 76 49
Gangotri Complex, Bhadbhada Road, T. T. Nagar	BHOPAL 462003	6 27 16
22E Kalpana Area	BHUBANESHWAR 751014	5 36 27
6-8-56C L. N. Gupta Marg	HYDERABAD 500001	22 10 83
R14 Yudhister Marg, C Scheme	JAIPUR 302005	6 98 32
117/418 B Sarvodaya Nagar	KANPUR 208005	4 72 92
Patliputra Industrial Estate	PATNA 800013	6 28 08
Hantex Bldg (2nd Floor), Rly Station Road	TRIVANDRUM 695001	32 27